

## Course Description

### Grades 10-12 Chemistry

**Philosophy Statement:** Science instruction equips students to know and experience God's basic eternal truths revealed through His creation. Science deepens the students' faith, understanding, and awareness of the eternal power and divine character of God. (Romans 1:20)

**Course Objective:** This is a general introductory chemistry course for the students. The students will become familiar with the following areas of study: Introduction to Chemistry and Matter, Organization of Matter, Language of Chemistry, and Phases of Chemistry, and Types of Chemical Reactions. Labs or investigations are used. Students will be able to look at any aspect of Chemistry that we have studied and determine how that subject is related to the Bible

**Textbooks:** *Exploring Creation With Chemistry*, 2nd Edition.  
Apologia, 2011  
Copyright 2006

#### **Materials:**

- Chemicals
- Laboratory supplies
- Laboratory equipment
- Calculator

**Time Allotment:** 45 minutes per day, 5 days per week

#### **Course Content:**

- Measurement and Units
- Energy, Heat, and Temperature
- Atoms and Molecules
- Classification of Matter and Its Changes
- Atomic Structure
- Molecular Structure
- Polyatomic and Molecular Geometry
- Stoichiometry
- Acid/Base Chemistry
- Solutions
- Gas Laws
- Thermodynamics/Kinetics/Reduction-Oxidation

#### **Areas to be evaluated:**

- Satisfactory and timely completion of assigned course work
- Labs
- Exams

#### **Additional activities:**

- Additional readings
- Media presentations
- Guest speakers
- Discussions